

Project/Performance Site Location(s)

Project/Performance Site Primary Location ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location 1 ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify)

* 3. Date Received:

12/14/2009

4. Applicant Identifier:

5a. Federal Entity Identifier:

* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

New York State Energy Research & Development Authority

* b. Employer/Taxpayer Identification Number (EIN/TIN):

14-1731395

* c. Organizational DUNS:

001827989

d. Address:

* Street1:

17 Columbia Circle

Street2:

* City:

Albany

County:

* State:

NY: New York

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

12203-6399

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Colleen

Middle Name:

* Last Name:

Gerwitz

Suffix:

Title:

Senior Project Manager

Organizational Affiliation:

* Telephone Number:

518-862-1090, ext 3451

Fax Number:

* Email:

clg@nyserda.org

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9. Type of Applicant 1: Select Applicant Type:

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Management Consolidated Business Cen

11. Catalog of Federal Domestic Assistance Number:

81.128

CFDA Title:

Energy Efficiency & Conservation Block Grant Program

* 12. Funding Opportunity Number:

DE-FOA-0000148

* Title:

Recovery Act: Energy Efficiency and Conservation Block Grants: Competitive Solicitation: Retrofit
Ramp-up and General Innovation Fund Programs

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

* 15. Descriptive Title of Applicant's Project:

A New York State Partnership, led by NYSEERDA and including New York City, the Town of Bedford, and
National Grid, to create large-scale, sustainable approaches for financing energy retrofits.

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

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16. Congressional Districts Of:

* a. Applicant NY-021

* b. Program/Project NY-ALL

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date: 04/01/2010

* b. End Date: 03/31/2013

18. Estimated Funding (\$):

* a. Federal	75,000,000.00
* b. Applicant	0.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	75,000,000.00

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.☐ c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)

☐ Yes☒ No

Explanation

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Mr. * First Name: Jeffrey

Middle Name: J

* Last Name: Pitkin

Suffix:

* Title: Treasurer

* Telephone Number: 518-862-1090

Fax Number: 518-862-1091

* Email: jjp@nyserda.org

* Signature of Authorized Representative: Jeffrey Pitkin

* Date Signed: 12/14/2009

Application for Federal Assistance SF-424

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*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

**Energy Efficiency Conservation Block Grant Proposal Project Narrative
New York State Partnership for Innovative Financing of Energy Efficiency Retrofits**

1. Project Description

On behalf of New York State, the New York State Energy Research and Development Authority (NYSERDA) in partnership with New York City (NYC), the Town of Bedford and thirteen additional Westchester Communities, and National Grid (the NYS Partnership) is submitting this proposal requesting \$75 million under the Energy Efficiency Conservation Block Grant (EECBG) Funding Opportunity Announcement (FOA), DE-FOA-0000148. The NYS Partnership is proposing to leverage new and existing energy efficiency retrofit and finance programs to create large-scale, sustainable approaches to financing energy retrofits across the State. In total, the Partnership expects to retrofit 29,800 buildings and create 6,293 jobs over the three year project period. The project includes separate, but coordinated efforts among the partners, to offer three distinct energy efficiency financing mechanisms to New Yorkers. By providing three financing mechanisms, *i.e.*, property assessed clean energy (PACE) loans, credit-enhanced bank loans and on-bill recovery loans, the Partnership will allow consumers to select the finance method that works best for them and will also produce information on consumer receptivity and program effectiveness for the benefit of energy efficiency program administrators across the State and the nation. In addition, since NYC, NYSEDA and the Town of Bedford each intends to independently access the capital markets, the Partnership is likely to produce valuable information regarding the opportunities associated with different scale finance structures. The following table summarizes the Partnerships proposed use of EECBG funds.

Summary of Proposed Distribution of EECBG Funds					
\$75M EECBG Award	\$40M New York City for PACE	\$4M - Neighborhood-based partners			
		\$2M – Local Development Corporation			
		\$32M – Loan Loss Reserves			
		\$2M - Administrative			
	\$35M NYSERDA for PACE & GJGNY	\$26M PACE	\$21M - Small Municipalities	\$1.2M - Bedford Pilot	
			\$19.8M Competitive		
		\$5M Large Municipalities Competitive			
		\$7M GJGNY	\$5M – GJGNY Loan Loss Reserves		
			\$2M – On Bill Recovery	\$0.4M – National Grid Pilot	
				\$1.6M Competitive	
\$2M - Administrative					

In recent months Governor Paterson has signed two key pieces of legislation allowing New York at the State and community level to implement new and improved innovative financing approaches that will significantly expand New York's many successful energy efficiency retrofit programs. **The Green Jobs-Green New York (GJGNY)** legislation created a statewide program, funded with \$112 million from the proceeds of selling CO₂ allowances under the Regional Greenhouse Gas Initiative (RGGI) that, among other things, will establish a revolving loan fund to finance energy audits and energy efficiency retrofits or improvements for residential, multifamily, small business, and not-for-profit property owners. The **Municipal Sustainable Energy Loan Program (MSELP)** legislation, which is consistent with the "Policy Framework for PACE Financing Programs," authorized New York's municipalities to establish sustainable energy loan programs (SELPs) using federal grant assistance or federal credit support. Municipal SELPs will make loans to commercial and residential property owners to finance energy audits, energy efficiency improvements, renewable energy feasibility studies, and installation of renewable energy systems. The NYS Partnership intends to use EECBG grant funds to leverage and maximize the

New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

opportunities presented by these two pieces of legislation and to deliver the resulting energy, economic, and environmental benefits to diverse communities and energy consumers across the State.

1.1 Municipal Sustainable Energy Loan Program (PACE Financing)

The innovative policy framework of Property Assessed Clean Energy (PACE) financing offers a new avenue to tap into the energy retrofit market and to help New York reach its aggressive goal of reducing energy use by 15% by 2015. The PACE framework allows property owners to borrow funds through their municipality and to repay the funds over longer periods than traditional consumer loans through their property tax assessment. While New York's recently passed MSELN legislation provided New York's municipalities with the authorization that is needed to establish PACE financing programs, the resources available through the EECBG funding opportunity are critical to jump-starting the wide-spread development of PACE financing programs across New York in a coordinated and standardized manner. In total, the NYS Partnership proposal will direct \$66 million of EECBG funds toward PACE programs, i.e., \$40 million to NYC, \$21 million to small municipalities and \$5 million to large municipalities. A grant of \$1.3 from the small municipality portion will be immediately sub-granted to the Town of Bedford in support of its pilot project in partnership with thirteen additional Westchester municipalities.

To achieve maximum informational and cross-fertilization benefit from this project, the NYS Partnership intends to work together to develop a standardized approach to monitoring and verification (M&V) that will allow the collection of information in a rigorous, systematic and streamlined manner such that the data set gathered from all New York building owners will be robust and, ultimately, fungible. As part of the terms and conditions of the retrofit financing, borrowers will be contractually obligated to release utility bill data to the municipality or the cognizant loan fund administrator. The Partnership will aggregate information and data in support of DOE's federally sponsored research project. One option that is being considered is the use of a centralized competitive procurement to select one or more program evaluation consultants that would be used by municipalities, on a fee basis, to fulfill the M&V requirements associated with their acceptance of EECBG funds. A brief description of each partner's proposed use of EECBG funds in support of a PACE financing approach to implement large scale retrofit programs is provided below.

1.1.1 New York City

As noted in the City's long-term sustainability plan, PlaNYC, energy efficiency initiatives would save every New Yorker money while creating jobs and reducing the city's overall carbon footprint. With the nation's largest building stock and some of the highest energy costs in the country, NYC intends to use its EECBG grant funds to launch a scalable residential and commercial building retrofit program that will create and retain jobs and serve as a valuable model nationwide. The proposed project seeks to transform the NYC energy efficiency market by: (1) establishing an integrated, sustainable outreach and delivery program that leverages the support of existing community-based neighborhood-level organizations to ramp up retrofits through a block-by-block approach; and (2) initiating a large-scale financing program using the PACE model to help participating building owners secure the upfront costs necessary to undertake energy efficiency retrofits.

Specifically, the City would use EECBG grant funds to:

- Provide, through its neighborhood-based program partners, ground-level marketing, outreach, and coordination services to building owners to help them undertake audits and retrofits and identify available financing sources (\$4M)

New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

- Set up a Local Development Corporation (LDC) to administer a Property Assessed Clean Energy (PACE) financing program (\$4M)
- Establish a loan loss reserve account, to be held by the LDC, to protect investors against temporary or permanent non-payment of the PACE assessment (\$32M)¹

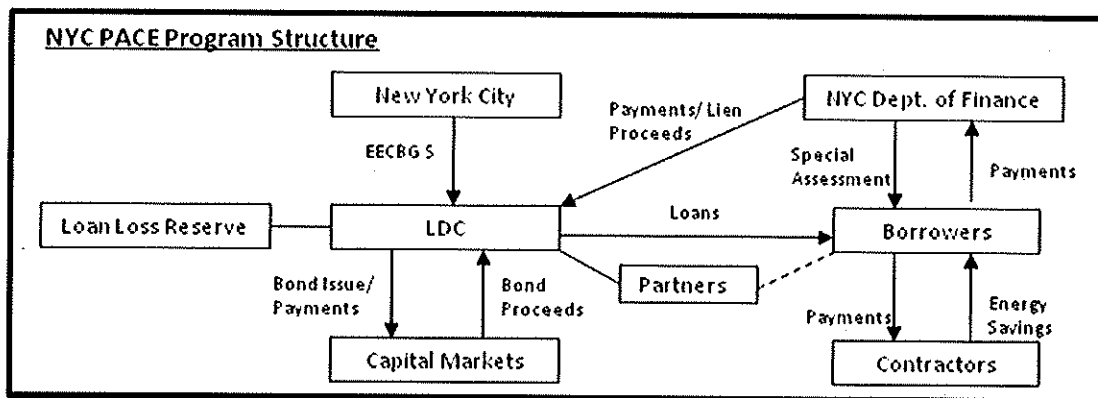
Program Impact

The City anticipates that \$35.8 million will be saved in energy costs, 2,435 jobs will be created and 309,137 metric tons of CO₂ will be avoided during the three years in which federal funding will be available. As savings goals are met and exceeded, cash flow is demonstrated to be predictable and reliable, and the PACE financing infrastructure proves to be efficient and attractive to the capital markets, the program would be easily replicable by other communities.

Outreach and Marketing

The proposed project seeks to partner with existing community-based groups, business improvement districts, and others to market a retrofit program, provide outreach, and create a one-stop-shop. The program would leverage existing social networks to increase awareness and take advantage of both the support and the peer pressure that comes with geographic targeting. Program partners will organize public events to raise awareness, such as community forums, sign-up meetings, and block parties. They will create and disseminate educational materials, and provide identification and coordination services with auditors and retrofitters. Finally, they will connect building owners to optimum packages of financial incentives, including the PACE program. For building owners, this one-stop-shop approach will serve several important functions. First, it will make it easy for the owner to identify the appropriate partners to conduct an energy audit and make the desired retrofit improvements. Second, owners will be able to fully understand their financing options, integrated as part of the overall audit and retrofit process. Third, building owners will be able to take advantage of the PACE program described above. This is critically important, as the up-front cost has been a major hurdle to convincing owners to participate in retrofit programs in the past. The PACE program will provide financing at up to no upfront cost, with long amortization periods and annual energy costs savings that will exceed the annual assessment.

Figure 1



¹ In addition to and separate from the PACE program, the City intends to establish a revolving loan fund utilizing 20% (or \$16.1 million) of the EECBG formula grant funds allocated to the city. Although the City intends to coordinate activities between the revolving loan fund and the proposed PACE program, such as target beneficiaries and geographic areas of focus, loan terms, etc., the programs will, in fact, be separate.

New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

Table 1: NYC PACE Program Structure	
Actor	Proposed Roles and Responsibilities
City of New York	<ul style="list-style-type: none"> ▪ Establish Local Development Corporation (LDC) ▪ Assign federal stimulus funding to LDC ▪ Department of Finance (DOF) imposes PACE assessment and records lien on borrower property ▪ DOF collects PACE assessment from borrower and remits payments to LDC ▪ In case of non-payment, DOF sells lien arising from non-payment and provides lien sale proceeds to LDC
Local Development Corporation (LDC)	<p>Financing Function</p> <ul style="list-style-type: none"> ▪ Periodically issue bonds backed by PACE assessments as loan pipeline levels are achieved ▪ Originate loans (perhaps through contract with third-party administrator) using bond proceeds ▪ Draw on loan loss reserve in case of borrower non-payment (reserve funded through EECBG grant proceeds) ▪ LDC may limit size of financing to certain percentage of borrowers' appraised value, along with setting other terms and conditions in accordance with best practices outlined in "Policy Framework for PACE Financing Programs" <p>Neighborhood Coordination Function</p> <ul style="list-style-type: none"> ▪ Coordinate neighborhood partnerships (core community associations, outreach groups, etc.), contractors and auditors ▪ Develop the administrative systems and materials to support the packaging of financial incentives, eligibility determination, tools and educational information ▪ Create a learning community across neighborhoods to identify transferable practices and tools
Partners	<ul style="list-style-type: none"> ▪ LDC contracts with neighborhood partners to market loans, work with borrowers to conduct audits and find contractors, etc. ▪ Coordinate block, civic, faith and neighborhood associations to disseminate outreach and educational materials ▪ Conduct community workshops and other activities to encourage program participation and energy efficient behavior
Borrower	<ul style="list-style-type: none"> ▪ Hire audit firm to prepare energy audit (with Partner assistance) ▪ Hire retrofit firm(s) to make improvements (with Partner assistance) ▪ Pay PACE assessment to DOF
Contractors	<ul style="list-style-type: none"> ▪ Prepare energy audit and/or make retrofit improvements ▪ Provide equipment warranties, as appropriate
Capital Markets	<ul style="list-style-type: none"> ▪ Purchase and hold bonds issued by LDC

1.1.2 New York State Energy Research and Development Authority

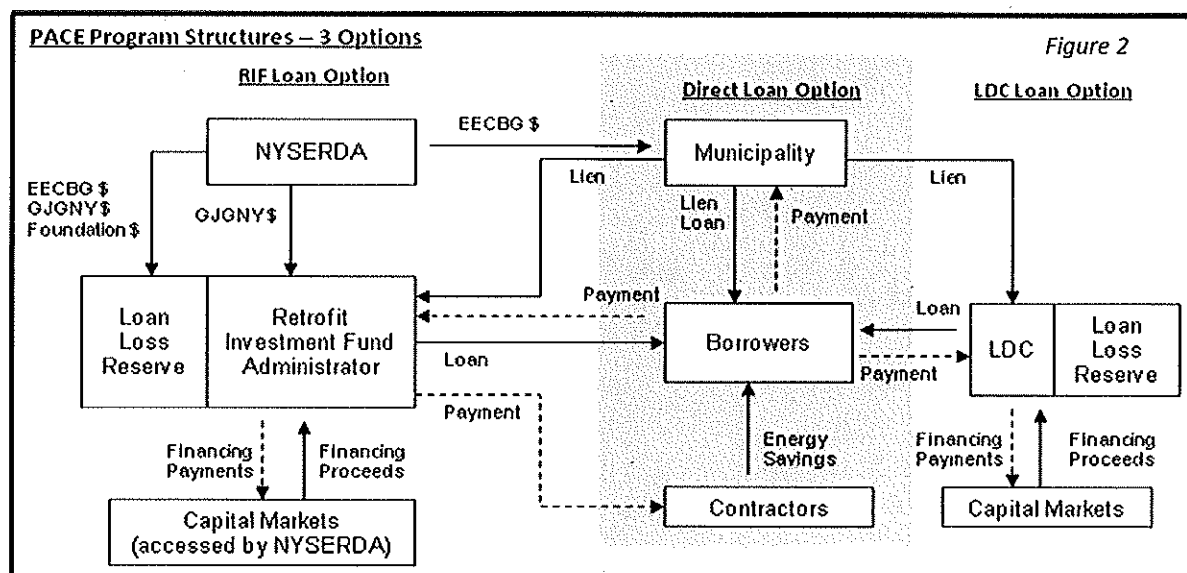
NYSERDA's support of PACE will be effectuated by competitively awarding \$26 million of EECBG funds to municipalities to launch programs based on the PACE Policy Framework. Up to \$21 million will be awarded to small municipalities (satisfying the requirement that 60% of the funds for the state's portion of the proposal be sub-granted to units of local government that are not formula eligible). A second competitive solicitation will make \$5 million available for large municipalities. It is anticipated that 15 to 20 municipalities in New York State will launch PACE programs through the competitive solicitations.

New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

Municipalities can use the funds to: capitalize a fund for PACE loans to property owners; leverage private investment through a loan loss reserve or other mechanism; cover administrative and legal costs associated with establishing financing districts or local development corporations; upgrade software and other systems to allow for servicing of loans; cover technical and program service costs; and market the program to eligible customers. Selection criteria will be closely aligned with DOE's objectives, and ranking of proposals will be based on: targeted neighborhood approaches; leveraged funds; quality and adequacy of a plan to assure that the consumer, lender, and borrower protections outlined in DOE's Policy Framework for PACE Financing Programs are addressed; projected energy savings per federal dollar invested; innovative local partnerships and sound outreach and marketing strategies; experience in similar ventures; ability to launch the program quickly; willingness to participate in DOE's evaluation and research project to assess the PACE approach. NYSERDA anticipates that its proposed PACE Program will complete 5,690 building retrofits, save \$8.2 million in annual energy costs while creating 283 jobs over the three year period.

To provide consistency, a higher degree of certainty for the quality and performance of the measures financed, as well as the required consumer protections, NYSERDA will provide the following resources to support all municipalities interested in establishing PACE programs within their communities: establish standards and models for energy audits and contractor certification; provide lists of qualified energy measures based on analysis and a common set of assumptions regarding energy and cost savings, CO₂ reductions, and measure life; develop a central website to represent New York's comprehensive PACE program and include case studies, best practices, tools and resources, and links to local programs; and provide model language for local ordinances and standard protocols for establishing the loan programs and application templates.

The following diagram depicts the three PACE program structures that will be available to New York municipalities. The municipality could: (1) use the EECBG funds as the direct loan capital and administer the program themselves, (2) use the EECBG funds to form an LDC that could issue bonds to the capital markets and then use the bond proceeds as the loan capital, or (3) contract with the Retrofit Investment Fund (RIF) administrator to access low-cost RIF capital. (See Section 1.3, "Leveraging GJGNY" for a discussion of the RIF.) The table that follows the diagram identifies organizational roles and responsibilities of the key entities.



New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

Table 2: Optional PACE Program Structures	
Actor	Proposed Roles and Responsibilities
NYSERDA	<ul style="list-style-type: none"> ▪ Conduct competitive solicitations to award funds to large and small municipalities ▪ Establish statewide PACE program components required by MSELPA legislation ▪ Facilitate standardized M&V and reporting standards and mechanisms ▪ Access the capital markets ▪ Retain RIF Administrator
Municipality	<ul style="list-style-type: none"> ▪ Adopt local law authorization ▪ Decide upon one of three PACE Program Structures ▪ Establish loan administration infrastructure if using Direct Loan option, establish LDC, or contract services with RIF Administrator ▪ Levy liens and other activities depending on option
Local Development Corporation (LDC)	<ul style="list-style-type: none"> ▪ Access the capital markets ▪ Perform credit analysis, originate loans ▪ Collect loan payments
RIF Administrator	<ul style="list-style-type: none"> ▪ Perform credit analysis ▪ Originate loans ▪ Collect loan payments
Borrower	<ul style="list-style-type: none"> ▪ Select and contract with energy audit and retrofit contractors ▪ Pay assessment
Contractors	<ul style="list-style-type: none"> ▪ Perform energy audit and make energy improvement recommendations ▪ Provide retrofit finance options and assist with loan application ▪ Perform retrofit work, provide completion certification, provide equipment warranties, etc.
Capital Markets	<ul style="list-style-type: none"> ▪ Provide financing

1.2.3 Town of Bedford

The Town of Bedford, a small municipal partner in this proposal, will receive a sub-grant of \$1.3 million to establish an early pilot program that will be quickly expanded for neighboring towns through a unique regional collaboration. Bedford intends to couple the LDC finance model described above with easy-to-access online "one-stop" information resources and electronic application and data gathering processes. In addition to a marketing campaign that will use best practices from both traditional and new social media, the program will rely on the relationships and commitment of trusted community-based volunteer citizen groups to educate and engage community residents. The experience and lessons learned through this pilot will be shared with other communities across the State to help others launch and manage successful PACE programs. The Town of Bedford has already obtained formal pledges from thirteen neighboring communities to adopt the model developed in Bedford.

1.3 Leveraging Green Jobs-Green New York (GJGNY)

As noted in the introduction, Governor Paterson signed the GJGNY Act on October 9, 2009. The legislation requires NYSERDA to use \$112 million of RGGI funds to: establish a revolving loan fund to finance energy efficiency retrofits; establish a network of constituency based organizations to provide outreach and enrollment services; and create new workforce development and training initiatives. In addition, it provides energy audits to eligible applicants based on a sliding scale, *e.g.*, energy audit fees will be waived for residential applicants whose demonstrated income is less than two times the median

New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

county household income. The GJGNY program provides an opportunity to increase the scale of New York energy efficiency retrofit programs through the use of innovative financing structures to increase the leveraging of funding. While several financing approaches have been advanced for accomplishing this, NYSERDA is proposing a 3-pronged strategy: (1) improving secondary market financing for bank loans (either secured or unsecured); (2) on-bill recovery financing; and (3) PACE financing. NYSERDA intends to leverage EECBG funds with GJGNY funds, to establish an Energy Efficiency Retrofit Investment Fund (RIF) for each financing approach. With the pledge of a loan loss reserve for each RIF, NYSERDA will gain access to low cost capital thereby providing attractive interest rates for each of the three consumer finance products. In particular, NYSERDA proposes to apply \$5 million of EECBG funds to help establish loan loss reserves for the state-wide RIF. This funding is crucial to the establishment of the necessary reserves but also to providing New York's large commercial entities access to low-interest RIF capital, as the GJGNY legislation limits the use of its funds to residential, small commercial and not-for-profit corporations.

NYSERDA will use EECBG funds to assist the State's utilities in developing an on-bill recovery financing structure, allowing consumers the ability to finance retrofits and repay them through their utility bill. Adoption of an on-bill financing approach has been slow in New York State and across the country due to a number of regulatory, infrastructure and financing issues. One of the barriers to on-bill recovery is the utility costs to upgrade their IT systems². To overcome this barrier, NYSERDA intends to allocate \$2 million of EECBG grant funds to help utilities up-grade customer information and billing systems. Approximately, \$400,000 will be immediately sub-granted to National Grid to support IT system upgrades and to pilot demonstration of on-bill recovery in National Grid's upstate service territory. Based on lessons learned during the initial months of the pilot, NYSERDA plans to issue a competitive solicitation to give other utilities interested in offering on-bill financing an opportunity to receive funding assistance to upgrade their IT systems.

Providing energy consumers with attractive energy financing is a crucial ingredient to achieving large scale energy retrofits. Equally important is the state-wide infrastructure that is needed to deliver the audits and retrofits. NYSERDA has built this infrastructure of successful energy efficiency programs using System Benefit Charge funds. With EECBG and GJGNY funds and the benefit of new financing structures, NYSERDA expects to leverage its prior accomplishments, but raise them to a new scale. The following table provides a high level description of the energy audit, retrofit and finance programs that NYSERDA currently administers and current annual activity levels.

NYSERDA Energy Efficiency Program	Level of Activity	Funds (\$M)
Home Performance with ENERGY STAR® - a residential retrofit program delivered through more than 200 participating Building Performance Institute (BPI) accredited contractors	6,259 retrofits	\$49.5
Multifamily Performance Program - a residential retrofit program the helps multifamily building owners provide energy efficiency apartments to their tenants	14,600 retrofits	\$40.4
Existing Facilities Program - a commercial and industrial retrofit program that offers	1,852	\$288

² The New York Public Service Commission initiated a proceeding to consider an on-bill financing program, Case 09-M-0465. The On-Bill Financing Report, dated October 30, 2009 filed by the parties to that case concluded that the Green Jobs - Green New York legislation provided the best approach to further explore on-bill financing in New York.

New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

incentives for a variety of energy projects including Pre-Qualified Measures and Performance-Based Incentives.	retrofits	
Technical Assistance / Energy Audit Program – provides energy audits to small businesses and other facilities to help them make informed electrical energy decisions and implement energy-efficiency strategies.	1,046 audits	\$10.3
ENERGY STAR Financing – a residential program that provides low interests financing for energy retrofits of 1-2 family owner-occupied homes	420	\$3.5
New York Energy Smart Loan Fund - a residential and commercial finance program with a statewide network of 150 participating lenders and leasing companies (190 C&I loans for \$74.5 million and 252 residential loans for \$1.7 million)	442 loans	\$77.1

Through these programs, NYSEDA has developed an extensive infrastructure of trained and certified contractors, auditors and raters to deliver energy efficiency retrofit programs. NYSEDA also already has in place an extensive worker training program and a network of trainers and will expand that program to ramp up for additional retrofits under this grant.

The following diagram depicts the GJGNY program structure. The table briefly identifies organizational roles and responsibilities of the key entities in the structure.

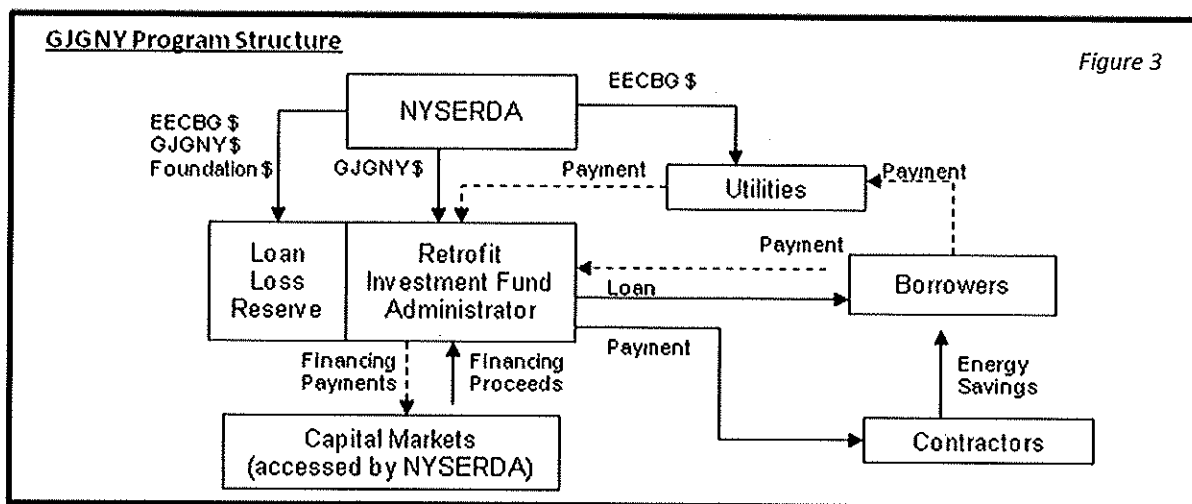


Table 3: GJGNY Program Structure	
Actor	Proposed Roles and Responsibilities
NYSEDA	<ul style="list-style-type: none"> Seek Foundation funds to support Loan Loss reserves Access the capital markets to capitalize the RIF Competitively select a RIF Administrator Award grant to National Grid and other utilities to upgrade billing systems Scale-up and administer energy audit, retrofit, workforce development, and M&V programs
RIF Administrator	<ul style="list-style-type: none"> Perform credit analysis Originate loans Collect loan payments
Utilities	<ul style="list-style-type: none"> Upgrade billing systems and implement on-bill recovery pilots
Borrower	<ul style="list-style-type: none"> Select and contract with energy audit and retrofit contractors

New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

	<ul style="list-style-type: none"> ▪ Pay assessment
Contractors	<ul style="list-style-type: none"> ▪ Perform energy audit and make energy improvement recommendations ▪ Provide retrofit finance options and assist with loan application ▪ Perform retrofit work, provide completion certification, provide equipment warranties, etc.
Capital Markets	<ul style="list-style-type: none"> ▪ Provide financing

2. Project Objectives

2.1. New York City Objectives

Goal/Objective	Proposed Work Plan
Create Replicable and Sustainable Energy Retrofit Programs	<ul style="list-style-type: none"> ▪ Leverage existing neighborhood-based programs to provide marketing and outreach. (NYC has enclosed letters of support from several potential partners, with the final set of partners to be established through a City procurement process.) ▪ After the grant period, program will be expanded to other neighborhoods and building types throughout NYC.
Improve Energy Efficiency of NYC's Existing Building Stock	<ul style="list-style-type: none"> ▪ Coordinate with neighborhood partners to market loans on block-by-block basis; identify audit and retrofit contractors; and coordinate with existing federal, state, and local subsidy programs. ▪ Originate and process loans, targeting neighborhoods for outreach based on type of building, projected energy savings per dollar invested, financing eligibility, level of local implementation support, and other factors.
Leverage EECBG Grant Funding	<ul style="list-style-type: none"> ▪ Provide PACE financing for high-value energy efficiency investments. LDC will work with neighborhood partners to engage building owners and connect them with optimum packages of financial incentives, auditors, and contractors.
Deliver Verified Energy Savings	<ul style="list-style-type: none"> ▪ Set standard energy savings and reporting requirements in contract terms with neighborhood-based energy efficiency outreach and delivery organizations.
Demonstrate Economies of Scale	<ul style="list-style-type: none"> ▪ Centralize coordination of neighborhood partners, set up evaluation systems, and act as a clearinghouse for resource materials, to bring greater cost/administrative efficiencies as program expands.

2.2. NYSERDA Objectives

Goal/Objective	Description and Proposed Work Plan
Establish Retrofit Investment Fund	<p>NYSERDA intends to enlarge and strengthen statewide energy efficiency retrofit financing opportunities by providing a highly leveraged loan pool that lowers the cost of capital available to state-wide energy efficiency finance programs. The proposed approach will accomplish this goal because the reduced cost of capital available through the RIF will significantly reduce program costs associated with buying down energy efficiency loans allowing significant expansion of the program to service more consumers.</p>
Support Municipal Sustainable	<p>NYSERDA intends to support municipalities in realizing the benefits of New York State's recently authorized Municipal Sustainable Energy Loan Program. The proposed approach will achieve this objective by providing funds, as well as technical and</p>

New York State Partnership for Innovative Financing of Energy Efficiency Retrofits

Energy Loan Programs	financial information to municipalities to enable them to launch local MSELs. Lessons learned from the Bedford pilot project will be shared to help other communities launch and manage successful loan programs.
Demonstrate On-Bill Recovery	NYSERDA intends to demonstrate the viability of on-bill recovery as a means for New York utility customers to finance their energy efficiency improvements and to repay them through savings they will realize on their utility bill. The proposed approach will achieve this objective by providing grants to New York utilities to upgrade existing customer information and billing systems to allow implementation of on-bill recovery and create a finance structure from which loans can be made. The pilot project with National Grid will foster important discussions between and among the utilities and the NYS Public Service Commission (PSC).
Achieve Economic, Environmental and Energy Benefits	NYSERDA intends to retrofit 25,640 residential and commercial buildings, save 96.9 GWh of electricity and 1,590,000 MMBtu of natural gas, fuel oil and other fuel savings; reduce greenhouse gas emissions by 140,000 metric tons, and generate \$49.1 million in annual energy bill savings, while creating 3,858 jobs. The proposed approach will achieve this objective by providing convenient energy efficiency finance options thereby allowing customers easy access to NYSERDA's existing, highly successful energy audit and retrofit programs.

3. Merit Review Criteria Discussion

3.1. New York City Merit Review Criteria Discussion

3.1.1 Leveraging and Sustainability

Leveraging

NYC intends to use \$32 million of EECBG funding to establish a loan loss reserve program, to be held by the LDC. The loan loss reserve will serve to protect bond holders from temporary or permanent non-payment of assessments. Based on preliminary discussions, capital investments could result in leverage at a 5:1 ratio, generating approximately \$160 million from public bond sales. This leveraging ratio is a conservative estimate and we anticipate the potential for a higher leveraging ratio. The project would also coordinate and work with its neighborhood partners to leverage existing federal and state incentive programs, such as DOE Weatherization Assistance Program funds, NYSERDA program funds, existing utility subsidies, and other resources. In addition, the project expects that some participating building owners would provide an initial equity contribution, so that federal grant dollars would be further leveraged. Finally, the City intends to coordinate the implementation of the PACE program with a separate revolving loan fund program that is funded by the allowable 20% of EECBG formula grant funds allocated to NYC.

Sustainable Financing Platform

By piloting homeowner and lender protections, the PACE program would help convince existing mortgage lenders and private lien-holders that energy efficiency improvements do, in fact, raise the value of existing properties, thereby helping to improve their own credit positions. Upon payment of the bond in full, the loan loss reserves would be released to leverage additional investor capital.

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Sustainable Market Transformation

NYC would use a sustainable neighborhood-based deployment mechanism to deliver its energy finance program. NYC's partner network would leverage the following existing capabilities:

- Education and outreach services based out of community facilities
- Partnerships with local universities for design incubation and innovation
- Long-standing relationships with community leadership (council members, community boards, religious institutions, etc.)

Rationale for Federal Funds

Without federal grant assistance, the City would find it significantly more difficult to establish such a financing program. Given the current budget environment, the City would not be able to allocate funding to establish and administer such a program. Also, given New York State constitutional prohibitions, the City could not use tax levy dollars to directly lend to private building owners or access the capital markets.

3.1.2 Project Impact

Economies of Scale and Critical Mass

New York City's neighborhood-based PACE project will take advantage of economies of scale by aggregating outreach efforts, audit programs, and retrofit contract work. The program design will reduce transaction costs and may allow auditors and contractors to bundle small jobs into larger projects. The EECBG funding will seed the PACE fund and allow for a pilot of the neighborhood-based outreach and retrofit program. After the initial grant period, the proposed project will build on lessons learned to expand its reach to include more neighborhoods and retrofit more buildings in New York City. To achieve critical mass, the Local Development Corporation will promote the PACE loans, support the block-by-block model, and contract with entities to deliver outreach, marketing, and implementation services.

Quantitative Impact

See "Project Description" and Appendix G for a discussion of the projected impact of the proposed program.

Replicability

The proposed program will demonstrate predictable and reliable cash flow and will prove that the PACE financing infrastructure is efficient and attractive to the capital markets. Once these successes in overcoming market barriers have been demonstrated, the PACE model can be replicated in many more New York City neighborhoods. The neighborhood-based outreach, marketing, and retrofit program will prove that the customized one-stop-shop concept works to bring large numbers of building owners into the audit and retrofit market. This targeted approach will be rolled out to New York City and other communities across the country as the program continues beyond the grant period.

3.1.3 Project Approach

Please see "Project Description" for a discussion of the proposed outreach and marketing approach and funding structure.

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Monitoring and Verification

Energy and cost savings will be monitored and verified through direct engagement with the borrowers. As part of the terms and conditions of the retrofit financing, borrowers will be contractually obligated to release utility bill data to the LDC. The LDC will then aggregate the utility bill data and work cooperatively with the utilities to facilitate this exchange of data. The LDC will also require borrowers to provide, on an annual basis, a narrative description of factors that led to actual performance (e.g., unusual weather conditions, changes in occupancy or uses, etc.).

A standardized approach will be established, with NYSERDA's assistance, to implement an M&V program that will allow us to collect information in a rigorous, systematic and streamlined manner such that the data set gathered from all New York building owners will be robust and, ultimately, fungible.

The M&V goal is to determine: (1) what combination of auditing/scoping methodology, retrofit construction and oversight, and building operations practices result in the best predictions about energy performance and dollar savings in NYC's buildings and (2) the economic impacts of investments given the resources spent on retrofits as they flow through the supply chain and create jobs.

Implementation and Delivery Plan

The LDC will contract with neighborhood partners to implement a geographically-focused approach to educate the public and bring their homes and businesses into the PACE program and other existing incentive programs. The partners will approach residential and commercial building owners through active community organizations which will be able to gain immediate access to the public's attention and trust. The neighborhood partners will work with these community associations to promote the PACE program and to match building owners with appropriate incentives, auditors, and contractors. The neighborhood partners will hold public information and sign up meetings that will involve community association leaders. A door to door sign up effort will be used in some neighborhoods. Auditors and contractors will be hired by the building owners to do the audits and retrofit work and to follow up with energy use monitoring to ensure that the anticipated energy savings are delivered.

Continuous Improvement

On an annual basis, project partners intend to conduct a formal project audit to (1) determine whether annual goals have been met and (2) devise strategies and implementation plans to improve processes. Willingness to participate in, and proposed approaches to, this audit/improvement process will be a part of the selection criteria in procuring the services of project partners.

National Environmental Policy Act (NEPA) Review

Our project proposal anticipates minimal negative environmental impact in the short term and significant environmental benefits in the long term. Work carried out by energy auditors and contractors to analyze and retrofit individual properties in New York City will be small in scope and will have a negligible impact on the surrounding environment. Such work may include: sealing ducts, improving insulation quality, upgrading heating equipment, sealing home air leaks, upgrading windows, and installing wall sheathing.

During the three years EECBG funds will be available, the City plans to retrofit 4,160 properties for improved energy efficiency, resulting in a total emission reduction of approximately 309,137 (MT CO₂).

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These significant long term environmental benefits far outweigh any negative impacts produced during retrofit construction.

3.1.4 Partnership Structure and Capabilities

See "Project Description" for detailed information on proposed program structure, including roles and responsibilities of proposed partners.

Qualifications and Experience of Project Team

The City's intention is to target residential and commercial buildings in several neighborhoods as an initial pilot/demonstration program. Conversations to date have focused on possible partnerships with the Community Environmental Center and local organizations in Cypress Hills, Brooklyn; the Pratt Center for Community Development in Bedford-Stuyvesant, Brooklyn; the Greening-a-Block program in the Lower East Side, Manhattan; and the Alliance for Downtown New York in Lower Manhattan. These potential partners would be contracted by the newly-created Local Development Corporation to deliver program services to potential borrowers in neighborhoods across New York City.

The City Of New York has extensive experience in administering federal grants and federally-funded programs. The federally-funded Local Development Corporation in the proposed program would issue bonds and administer loans in a similar manner as several other City-established LDCs, such as TSASC Inc, The Sales Tax Asset Securitization Corporation and the Jay Street Development Corporation. [See the resume file for more information on the qualifications and experience of select City of New York staff.]

The Local Development Corporation will contract with neighborhood-based partners that have experience in providing technical support to community organizations. They will have a history in building local partnerships, organizing neighborhood workshops and outreach efforts, and will have in-house expertise in energy efficiency. [See the letters of support and resumes from potential partners for additional information on the type of qualifications and expertise the LDC will require.]

3.2 NYSERDA Merit Review Criteria Discussion

3.2.1 Leveraging and Sustainability

Leveraging

NYSERDA estimates that through the combination of its MSELP and GJGNY efforts, it will be able to leverage EECBG funds by a factor of 9.1 to 1.

Sustainable Financial Platform

The GJGNY legislation requires NYSERDA to establish a revolving loan fund to support energy efficiency retrofits in residential, multi-family and small commercial buildings. The GJGNY is designed as a pilot demonstration with the initial \$112 million being fully committed during this initial phase. NYSERDA will use the pilot funds to create a credit enhanced loan financing structure to offer loans through a statewide program lender competitively selected by NYSERDA. NYSERDA will access funding for loans through the capital markets, structured initially as a pilot institutional lending facility structure and eventually offered through a rated security. Upon full payment of the financial instrument, loan loss reserves will be released to leverage additional capital.

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Sustainable Market Transformation

NYSERDA will create meaningful market transformation through the expansion of community-based outreach programs that educate and promote participation and through expansion of its Home Performance with ENERGY STAR® program and its network of BPI-accredited contractors. BPI contractors deliver retrofits to consumers in a consistent manner and with high quality control standards. The EECBG grant will also allow NYSERDA to expand its audit and energy efficiency implementation projects in the commercial sector. NYSERDA will continuously expand its pool of competitively selected contractors who demonstrate that they can provide high-quality services to the commercial sector.

Rationale for Federal Funds

EECBG grant funds are crucial to the NYS Partnership's ability to offer consumers three energy efficiency financing options. EECBG funds are: (1) the primary means by which municipal sustainable energy loans will be funded and demonstrated across NYS; (2) are the source of funds that will help NYS utilities upgrade IT systems in support of the on-bill recovery; and (3) will supplement GJGNY funds to allow large commercial buildings to access the RIF to finance retrofits.

3.2.2 Project Impact

Economies of Scale and Critical Mass

As a result of recently passed GJGNY and MSELPA legislation, New York is positioned to implement energy efficiency retrofits on an unprecedented scale. NYSERDA is assigned central administrator and standards setting roles in each piece of legislation which is important to ensuring the consistency and quality that is crucial to consumer and capital market confidence and the achievement of a "tipping point" in New York's energy efficiency retrofit market. The NYS Partnership and its pilot demonstrations will provide valuable experience which will serve to inform further expansion of the financing of energy efficiency retrofits.

Quantitative Impact

Estimated number of retrofits for the project and post project period are 25,639 and 8,216, respectively. Estimated electricity savings for the project and post-project period are 96.9 and 5.7 GWh, respectively. Estimated savings from natural gas, fuel oil and other fuels for the project and post project period are 1,590,000 and 93,650 MMBtu, respectively. Estimated emission reductions for the project and post-project period are 140,000 and 8,000 metric ton CO₂, respectively. Estimated number of jobs for the project and post-project period are 3,858 and 165, respectively. (See "Project Description" and Appendix G for additional discussion of impacts.)

Replicability

The NYS Partnership includes PACE and on-bill recovery demonstration projects to facilitate modeling and replication in other communities and with other utilities. The project includes a plan to issue competitive solicitations in support of this replication. On a larger scale, NYSERDA is in a unique position with the availability of \$112 million of GJGNY funding, to demonstrate the potential value of a central state-wide finance administrator. A centralized energy efficiency finance administrator may provide more efficient access to the capital markets and lower cost capital which may lower the finance costs

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charged to consumers. NYSERDA will make information on its programs available to other states interested in replicating such a model.

3.2.3 Project Approach

See "Project Description" for additional information on proposed project approach.

Outreach and Marketing

NYSERDA already has in place a network of competitively selected community-based organizations across the State who assist with education and marketing of energy efficiency programs to property owners within their communities. In addition, NYSERDA will continue its cooperative advertising with contractors that advertise their services and their energy efficiency credentials. Under the GJGNY program, NYSERDA is tasked with engaging additional constituency based organizations to provide outreach and enrollment services for the program.

Funding Structure

The funding structure for the MSEL program is shown in Figure 2. The funding structure for the GJGNY program is shown in Figure 3.

Implementation / Delivery Plan

NYSERDA will support development and implementation of consumer finance options by issuing competitive solicitations to select a RIF Administrator, evaluation service contractor(s), small and large municipal PACE communities, and utilities willing to pilot on-bill recovery. In addition, NYSERDA will scale-up its successful existing work force development, community outreach partnerships, energy audit and retrofit programs to provide quality energy efficiency infrastructure services for consumers to access across the state.

Monitoring and Verification

NYSERDA will conduct an impacts assessment of the GJGNY program to: (1) measure and verify, using various desktop and on-site methods, the reduction in energy use and costs resulting from implementing the energy-efficient measures and practices using program funds; (2) calculate the greenhouse gas emissions reductions associated with the reduced energy requirements in New York; (3) determine the number of workers trained for green jobs through program-sponsored training; and (4) determine the number of green jobs created and number of program-trained and skilled workers hired into the green jobs market. NYSERDA plans to provide all MSEL recipients in New York access to a team of energy program evaluation consultants selected by NYSERDA through a competitive procurement process. The selected consultant team will possess the experience, skills, and resources necessary to carry out all of the evaluation activities required by the Department of Energy, focused on assessing the impacts, e.g., energy savings or clean energy produced, attributable to the loans made to residents within the participating municipalities. The municipalities, when ready for program evaluation, would contract directly with one or more of the consultant team members for the evaluation services.

Continuous Improvement

NYSERDA will conduct a process evaluation on the program design and delivery to receive participant, non-participant, and constituency-based organizations' comments and feedback on various elements of

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the program, including but not limited to, the financing application process, nature and scope of the program services and incentives, and quality of the services received from the program implementers. This information will be used to improve the programs.

National Environmental Policy Act (NEPA) Review

Programs to be funded have been designed to minimize environmental impacts. The application process will incorporate eligibility criteria and restrictions that will attract applicants and projects that fit within the categorical exclusions described at 10 CFR 1021. Applicants will be required to address and demonstrate compliance with all state and federal requirements, including but not limited to Section 106 of NHPA; continuing compliance will be required through award/contract documents.

3.2.4 Partnership Structure and Capabilities

See "Project Description" for detailed information on proposed program structure, including roles and responsibilities of proposed partners.

Partnerships

The NYS Partnership includes a broad range of entities, including: NYSEDA, on behalf of the State of New York, the City of New York, the Town of Bedford and thirteen neighboring Westchester communities; and National Grid. The core entities have established networks with many community-based organizations, educational and training institutions, energy auditors and energy retrofit contractors.

Roles and Responsibilities

Roles and responsibilities of the many partners are described in Tables 2 and 3 of the application, in association with the Program structure diagrams (Figures 2 and 3) which show the relationships and interactions of the various entities.

Qualifications and Experience of Project Team

NYSEDA has been New York State's SBC Program administrator since 1998 and has extensive experience in implementing energy efficiency retrofit and finance programs on a state-wide basis. (See the brief program listing and program activity levels in Section 1.3). As a public benefit corporation, NYSEDA has statutory authorization to borrow money, issue bonds and notes and to finance energy projects. *NY Public Authority Law, Section 1854 and 1855*. NYSEDA is experienced in issuing tax-exempt bonds on a conduit basis on behalf of utility companies to finance certain eligible projects. As of March 31, 2008, approximately \$3.6 billion of such bonds were outstanding. National Grid is New York's second largest investor-owned utility serving 1.4 million customers across the State, but most importantly, National Grid has volunteered to be the utility leader in demonstrating the viability of the on-bill recovery as a New York energy efficiency financing option. The Town of Bedford is a New York leader in the PACE financing arena. Bedford established an energy advisory panel, sought and received special legislative approve to create and implement a PACE financing approach and has sought and received pledges from neighboring towns to emulate the Bedford approach once demonstrated. (See resume file for qualifications of key persons from all partners.)

3.3 NYS Partnership Program Policy Factors

Diversity